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EXAMINER

PAULA, CESAR B

ART UNIT

PAPER NUMBER

2178

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/348,652	Applicant(s) GRAHAM, JAMEY	
	Examiner CESAR B. PAULA	Art Unit 2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10-15,17,18,20-25,27,28 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10-15,17,18,20-25,27,28 and 30-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is responsive to the RCE, and IDS filed on 2/4/2005.

This action is made Non-Final.

2. In the amendment, claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-37 are pending in the case. Claims 1, 10-11, 20-21, 30, and 37 are independent claims:

Information Disclosure Statement

3. The IDS filed on 2/4/2005 has been considered by the Examiner.

Drawings

4. The Applicant has indicated that a submission of a petition for colored photographs has been deferred until allowable subject matter is indicated (page 12, lines 14-15).

Claim Rejections - 35 USC § 112

5. The rejection of claim 37 under 35 U.S.C. 112, second paragraph, has been withdrawn as necessitated by the amendment to this claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 37 remains rejected under 35 U.S.C. 102(e) as being anticipated by Aalbersberg (Pat.# 5,946,678, 8/31/99, filed 1/11/95, as disclosed in IDS paper 3).

Regarding independent claim 37, Aalbersberg discloses a window for receiving query words--“car, sales, Europe”-- indicating user’s concepts of interest input (c. 2, L. 1-58, and fig. 2).

Furthermore, Aalbersberg discloses that in response to the selection of a view button, a document is retrieved and *analyzed* for the corresponding query words—*occurrences and persistences of the first and second concept of interest*-- present in certain locations of the document. Each query word, such as car, sales, and Europe, is retrieved, and displayed using the color scheme, where by looking at the document, one can see where each of the concept of interest is found, and which location has more or less of a concept of interest—*determining a combined persistence and displaying a visual indicator showing the combined persistence of the first and the second concept of interest at locations within the electronically stored document* (col. 6, L. 1-67, and fig. 5).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 7-8, 11-15, 17-18, 21-25, 27-28, 31, and 33 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Ball et al, hereinafter Ball, "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2), in view of Wroblewski et al, hereinafter, Wroblewski (Pat.# 5,479,600, 12/26/1995, as disclosed in IDS paper 3).

Regarding independent claim 1, Ball discloses the color-coding of a document based on a concept of interest—"code age"-- input by a user. Color-coding takes place by analyzing the document and color-coding or identifying locations or *occurrences* of interest in the document as per the concept of interest indicated by the user-- (page 4, 2.1, and fig. 1).

Furthermore, Ball discloses a right pane—*visual indicator*-- for indicating the display of a concentration of the analyzed new, and old code by their respective color-coding. A user can look at the right pane thumbnail and view the concentration of the old and new code throughout the document, based on the different color of the code -- (page 4, 2.1, and fig. 1). Ball fails to explicitly disclose *a visual indicator showing persistence measures of the user-specified concept of interest at locations within the electronically stored document, the persistence measures of the*

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user-specified concept of interest at the locations determined based upon a number of the occurrences of discussion of the user-specified concept of interest at the locations, for a location within the electronically stored document, the visual indicator displays a persistence measure of the user-specified concept of interest at that location relative to other locations in the electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing relative strength of a user specified concept of interest. However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays locations of words or *concept of interest* —“taxonomy”—in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia, within a document. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the locations—*persistence measures*-- of the words in the document using vertical marks or indicia. The scrollbars display the distribution of a concept of interest at various locations in the document based upon their placement in the document -- *displays a persistence measure of the user-specified concept of interest at that location relative to other locations in the electronically stored document.* For example in fig. 2, we can observe that there are three indicia 18, within vertical scroll bar 16. The horizontal scrollbar shows the distribution of a concept of interest, such as “taxonomy”, relative to each of the three locations of indicia 18 (fig.1-3, col.1, lines 44-67, and col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes of the data file presently being displayed in a display field of the screen (col. 1, lines 56-67). This would enable a user to be able

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to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by looking at the scrollbars.

Regarding claim 2, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation where a document contour showing undulating lines of code—*contour graph image*—showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 3, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation *or line graph* showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 4, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of two bars—*bar graph*-- containing color-coded rows of pixels showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 5, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display containing color-coded lines scattered—*scatter diagram*--

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throughout a visual representation of a document showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 7, which depends on claim 31, Ball discloses a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20, and fig. 1). Ball fails to explicitly teach *accepting user input moving said slider to a second section of said visual indicator and responsive to movement of said slider to said second section of said visual indicator, displaying a section of said electronically stored document corresponding to said second section of said visual indicator*. However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars-- *movement of said slider to said second section--* to a second location for displaying a corresponding section in the document (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

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Regarding claim 8, which depends on claim 1, Ball discloses the display of an elongated thumbnail version of a document with portions color-coded—*annotated*-- to identify a user's concept of interest —*occurrences discussion* (page 4, 2.1, and fig. 1).

Claims 11-15, 17-18, 33 are directed towards a computer program product on a computer-readable medium for storing the steps found in claims 1-5, 7-8, and 31 respectively, and therefore are similarly rejected.

Claims 21-25, 27-28 are directed towards a computer system for implementing the steps found in claims 1-5, and 7-8, therefore are similarly rejected.

Regarding claim 31, which depends on claim 1, Ball discloses the display of a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20 and fig. 1). Ball fails to explicitly teach *displaying a slider on said visual indicator, said slider highlighting a section of said visual indicator corresponding to said section of said electronic document displayed on said display* . However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars to by covering or highlighting the position of the scrollbars to where the cars were moved to (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the

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benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-col..2, line 5). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

Claim 35 is directed towards a computer system for implementing the steps found in claim 31, and therefore are similarly rejected.

10. Claims 10, 20, 30, 32, 34 and 36 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Aalbersberg, in view of Wroblewski.

Regarding independent claim 10, Aalbersberg discloses a window for receiving query words—"car, sales, Europe"-- indicating user's concepts of interest input (c. 2, L. 1-58, and fig. 2).

Furthermore, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme. The indicators also have a view button, which allows a user to select the corresponding indicator to view the full text of the document containing the query words. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words—*occurrences*-- present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-39, and fig. 4-5). Aalsbersberg fails to explicitly disclose *a visual indicator showing persistence measures of the first-user specified concept of interest at locations in said electronically stored document, the persistence measures of the first user-specified concept of interest at the locations determined*

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based upon a number of the occurrences of discussion of the first user-specified concept of interest at the locations, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing persistence measures of a user specified concept of interest. However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays locations of words or *concept of interest* —“taxonomy”—in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia, within a document. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the locations—*persistence measures*-- of the words in the document using vertical marks or indicia. The scrollbars display the distribution of a concept of interest at various locations in the document based upon their placement in the document -- *displays a persistence measure of the user-specified concept of interest at that location relative to other locations in the electronically stored document.* For example in fig. 2, we can observe that there are three indicia 18, within vertical scroll bar 16. The horizontal scrollbar shows the distribution of a concept of interest, such as “taxonomy”, relative to each of the three locations of indicia 18 (fig.1-3, col.1, lines 44-67, and col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes of the data file presently being displayed in a display field of the screen (col. 1, lines 56-67). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by looking at the scrollbars.

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Claim 20 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 10, and therefore is similarly rejected.

Claim 30 is directed towards a computer system for implementing the steps found in claim 10, and therefore is similarly rejected.

Regarding claim 32, which depends on claim 10, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme to indicate which concept or query words are present in the document. The indicators also have a view button, which allows a user to select the corresponding indicator—first, second, third indicator, etc., to view the full text of the document containing concentration of the location of the query words or *concept of interest*. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-39, and fig. 4-5). Aalsbersberg fails to explicitly disclose *displaying in the visual indicator showing concentrations of the second user-specified concept of interest*. However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays a section or location of words or *concept of interest* — “taxonomy”—in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia, within a document. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the distribution or relative strength of concentration of the words in the document using vertical marks or indicia. The scrollbars display the distribution or strength of a concept of interest at one

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location in the document versus other locations. For example in fig. 2, we can observe that there are three indicia 18, within vertical scroll bar 16. The horizontal scrollbar shows the distribution of a concept of interest, such as “taxonomy”, relative to each of the three locations of indicia 18. Therefore, we see, the variation of the strength—*relative strength*-- of the concept of interest represented by indicia 18, by looking at the horizontal scroll bar, where we find that the first two indicia 18 locations (vertical scroll bar) are much closer together along the horizontal axis, than the third indicium 18, which more spread apart, along the horizontal axis than the first two indicia (fig.1-3, col.1, lines 44-67, and col.3, lines 27-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes of the data file presently being displayed in a display field of the screen (col. 1, lines 56-67). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by looking at the scrollbars.

Claim 34 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 32, and therefore is similarly rejected.

Claim 36 is directed towards a computer system for implementing the steps found in claim 32, and therefore is similarly rejected.

Response to Arguments

11. Applicant's arguments filed on 2/4/2005 have been fully considered but they are not persuasive. Regarding claim 37, the Applicant indicates that this claim has been amended as suggested by the Examiner, and that Aalbersberg does not teach the amended limitations (pages 14-15). As shown in the interview summary mailed on 1/14/05, a discussion took place as to the differences between the prior art, and the claims, and how to clarify the claims. This was a general conversation. The Examiner did not proposed specific language to be placed in the claims. In light of an examination of the amended claims, the rejection is being maintained as indicated above.

Regarding claim 1, once again, the Applicant indicates that this claim has been amended as suggested by the Examiner, and that neither Ball nor Wroblewski teach the amended limitations (pages 15-17). As indicated above the interview summary mailed on 1/14/05, a discussion took place as to the differences between the prior art, and the claims, and how to clarify the claims in general terms. There was no proposal as to the specific language to be included in the claims. In light of an examination of the amended claim, the rejection is being maintained as indicated above.

Moreover, the Applicant notes that Wroblewski fails to teach or suggest displaying a visual indicator that shows the persistence measures of a user-specified concept of interest at locations within the document (pages 17-18). The Examiner disagrees, because Wroblewski

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teaches the display of a graphical frame-- *visual indicator*—which displays locations of words or *concept of interest* —“taxonomy”—in a vertical scroll bar-- *a first axis*—using horizontal marks or indicia, within a document. The frame also contains a horizontal scroll bar-- *a second axis*—for showing the locations—*persistence measures*-- of the words in the document using vertical marks or indicia. The scrollbars display the distribution of a concept of interest at various locations in the document based upon their placement in the document -- *displays a persistence measure of the user-specified concept of interest at that location relative to other locations in the electronically stored document*. For example in fig. 2, we can observe that there are three indicia 18, within vertical scroll bar 16. The horizontal scrollbar shows the distribution of a concept of interest, such as “taxonomy”, relative to each of the three locations of indicia 18 (fig.1-3, col.1, lines 44-67, and col.3, lines 27-67).

Claims 2-5, 7-8, 10-15, 17, 18, 20-25, 17-18, and 30-36 are rejected at least based on the rationale established above.

Conclusion

I. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.

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Any response to this Action should be mailed to:

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CESAR PAULA
PRIMARY EXAMINER

4/29/05